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10/587,988	03/05/2007	Ulrich Pegelow	H05842 (13744*16)	6441
45847 7590 09/15/2008 CONNOLLY BOVE LODGE & HUTZ LLP PO BOX 2207 WILMINGTON, DE 19899-2207				
EXAMINER SCOTT, ANGELA C				
ART UNIT		PAPER NUMBER		
1796				
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09/15/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/587,988

**Applicant(s)**

PEGELOW ET AL.

**Examiner**

Angela C. Scott

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 July 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 18-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 18-46 is/are rejected.  
7) ☒ Claim(s) 28, 30, 31 and 42 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date 08/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Applicant's response of July 10, 2008 has been fully considered. Claims 1, 18-20, 21-41, and 44-46 have been amended and claims 1 and 18-46 are pending.

#### ***Election/Restrictions***

In the Office Action of June 16, 2008, the Applicant was required to elect one species of the five species of non-ionic surfactant presented in claims 24-26 and 29-30. Applicant has traversed this election and requested that the restriction requirement be reconsidered and withdrawn. This request has been granted.

#### ***Specification***

The specification is objected to because it does not contain limitations included in the claims. In claim 27, it states that either or both R<sup>1</sup> and R<sup>2</sup> contain 1 to 5 hydroxyl groups. In claim 28, it further states that either or both R<sup>1</sup> and R<sup>2</sup> are functionalized with an ether group. When reading the specification, paragraphs 51 and 52 for example, it seems to state that only R<sup>2</sup> may contain the hydroxyl groups or be functionalized with an ether group. Correction of this discrepancy is required.

#### ***Claim Objections***

Claim 28 is objected to because of the following informalities: This claim ends with a comma and not a period. Appropriate correction is required.

Claim 30 is objected to because of the following informalities: In the general formula listed in claim 30, the R<sup>3</sup> variable seems to be misplaced. This variable should be placed on the second carbon of the "y" subscripted group and has been interpreted as such. Appropriate correction is required.

Claim 31 is objected to because of the following informalities: In lines 1-2 of claim 31, the words "wherein the" are repeated. Appropriate correction is required.

Claim 42 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

claim(s) in independent form. Claim 42 recites the same ratio of component b to component c as stated in claim 1. Therefore, claim 42 fails to further limit the subject matter of a previous claim.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the weight ratio of component b to component c is not met throughout the entire claimed weight percent ranges of components b and c. For example, if component c is present in an amount of 10 weight percent, the weight ratios can never be met and have the weight percent of component b fall within its claimed range. For the purpose of further examination, the weight percent ranges are presumed to be correct and the weight ratios will be broadened to account for this interpretation.

In claim 29, the monohydroxylated intermediate group listed in the last line does not correspond to the general formula listed above in the claim. Specifically, the "x" variable is attached to the ethylene oxide group in the general formula and to the monohydroxylated intermediate group in the last line of the claim. For the purpose of further examination, the general formula listed in line 3 of the claim will control.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

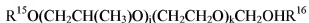
claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(c), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 18-24, 32-34, and 38-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248).

Regarding claims 1, 18-23, 38-39, and 42-43, Tartakovsky et al. teaches a solid dishwashing detergent (Page 1, lines 5-15) comprising about 1% to about 40% by weight of sodium percarbonate (bleaching agent) (Page 20, lines 10-20), from about 0.5 to 30 % by weight of a non-ionic surfactant (Page 32, lines 29-31), and 0.1 to 20% by weight (Page 16, line 1) of a water soluble cationic polymer (Page 5, line 10) with a molecular weight from about 1000 to about 107 (Page 15, lines 31-32).

Tartakovsky et al. does not teach that the weight ratio of the non-ionic surfactant to the cationic polymer is between 25:1 and 100:1. However, it is commonly practiced in the art to optimize result effective variables, such as the weight ratios of components (MPEP §2144.05). At the time of the invention, a person of ordinary skill in the art would have found it obvious to optimize the amounts of the non-ionic surfactant and the cationic polymer to each other and would have been motivated to do so in order to achieve a good balance between the anti-corrosion effects of the polymer and the wetting effects of the surfactant.

Regarding claim 24, Tartakovsky et al. additionally teaches that the non-ionic surfactant can be of the general formula



wherein  $R^{15}$  is a linear, aliphatic hydrocarbon radical having from about 4 to about 18 atoms including mixtures thereof; and  $R^{16}$  is a linear, aliphatic hydrocarbon radical having from about 2 to about 26 carbon atoms including mixtures thereof; j is an integer having a value of from 1 to about 3; and k is an integer having a value from 5 to about 30 (Page 28, line 25 to Page 29, line 5).  $R^{15}$  corresponds to  $R^1$ ,  $R^{16}$  to  $R^2$ , j to x, and k to y.

Regarding claim 32-34, Tartakvosky et al. teaches preparing a tablet (molded body), which is a preconditioned unit dose, from the detergent composition (Page 37, line 4). Tartakvosky et al. does not explicitly teach that the dose comprises between 0.5 and 4 grams, preferably between 1.5 and 2.5 grams, of the non-ionic surfactant. However, Tartakvosky et al. does teach the claimed weight percentages of the surfactant and the amount in grams should fall within this percentage.

Regarding claim 40, Tartakvosky et al. additionally teaches that the cationic polymer comprises monomer units of an ethylenically unsaturated compound as described by formula 1



wherein R<sup>1</sup> is hydrogen, hydroxyl, or a C<sup>1</sup> to C<sup>30</sup> straight or branches alkyl radical; R<sup>2</sup> is hydrogen, a C<sup>1</sup> to C<sup>30</sup> straight or branched alkyl, a C<sup>1</sup> to C<sup>30</sup> straight or branched alkyl substituted aryl, aryl substituted C<sup>1</sup> to C<sup>30</sup> straight or branched alkyl radical or a poly oxyalkene condensate of an aliphatic radical, and R<sup>3</sup> is a heteroatomic alkyl or aromatic radical containing either one or more quaternized nitrogen atoms or one or more amine groups having a pK<sub>a</sub> of about 6 or greater and a positive charge over a portion of the pH interval pH 6 to 11 (Page 5, lines 10-27)

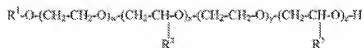
Regarding claim 41, Tartakvosky et al. additionally teaches that the polymer can contain co-poly diallyldimethylammonium salt as a monomer unit (Page 11, line 2).

Regarding claims 44-45, Tartakvosky et al. additionally teaches that the detergent contains a water-soluble phosphate builder in an amount of from 1 to 90% by weight (Page 7, lines 16-18).

Regarding claim 46, Tartakvosky et al. teaches a machine dishwashing method of treating soiled glassware with an aqueous solution having dissolved or dispensed therein an effective amount of the detergent of the invention (Page 37, lines 20-25. Tartakvosky et al. does not explicitly teach that to then rinse the glassware. However, it is known that the washing cycles in dishwashers rinse the dishes after they have been washed.

Claims 25-28 and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248) as applied to claim 1 above, and further in view of Holderbaum et al. (US 2003/0166493).

Regarding claim 25, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claim 25. However, Holderbaum et al. does teach a non-ionic surfactant for dishwashing detergents corresponding to the general formula:



in which R<sup>1</sup> is a linear or branched, saturated or mono- or polyunsaturated C<sub>6-24</sub> alkyl or alkenyl group; the groups R<sup>2</sup> and R<sup>3</sup> independently of one another are each selected from CH<sub>3</sub>, CH<sub>2</sub>CH<sub>3</sub>, CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, CH(CH<sub>3</sub>)<sub>2</sub>; and the indices w, x, y, and z independently of one another stand for integers of 1 to 6 (¶143-144). Tartakovsky et al. and Holderbaum et al. are analogous art because they are from the same field of endeavor, namely that of solid form dishwashing detergents. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Holderbaum et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (¶157-158) and teaches that either of them can be used in the detergent.

Regarding claims 26-28, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claims 26-28. However, Holderbaum et al. does teach a non-ionic surfactant for dishwashing detergents corresponding to the general formula:



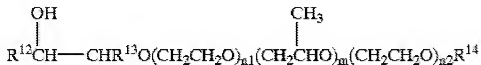
in which R<sup>1</sup> and R<sup>2</sup> are linear or branched, saturated or unsaturated, aliphatic or aromatic hydrocarbon radicals containing 1 to 30 carbon atoms; R<sup>3</sup> stands for hydrogen or for a methyl, ethyl, n-propyl, isopropyl, n-butyl, 2-butyl or 2-methyl-2-butyl radical; and x has a value of 1 to 30. In this case, the R<sup>2</sup> in the claim is represented by the entire contents of the second brackets which contain a hydroxyl group and an ether functionality. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught

by Holderbaum et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (§157-158) and teaches that either of them can be used in the detergent.

Regarding claims 35-36, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach that the molded body is a multiphase molded body or that it is a mono- or multiphase tablet with a filled cavity. However, Holderbaum et al. does teach producing single-phase and multiphase tablets and single-phase and multiphase tables with a cavity (§30). At the time of the invention, a person of ordinary skill in the art would have found it obvious to have the molded body, as taught by Tartakovsky et al., in these forms, as taught by Holderbaum et al., and would have been motivated to do so because the different phases, including the filled cavity, allow for different “parts” of the detergent to remain separated until the time for them to be mixed in the wash cycle while still allowing for all of the advantages of the tablet such as ease of dosing and handling.

Claims 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248) as applied to claim 1 above, and further in view of Kischkel et al. (US 2003/0114348).

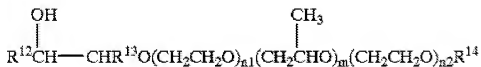
Regarding claims 29, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claim 29. However, Kischkel et al. does teach using a hydroxy mixed ether as a non-ionic surfactant in dishwashing detergents. The hydroxy mixed ether is of the general formula:





in which R<sup>12</sup> is a linear or branched alkyl radical having 2 to 18 carbon atoms; R<sup>13</sup> is hydrogen or a linear or branched alkyl radical having 2 to 18 carbon atoms; R<sup>14</sup> is a linear or branched alkyl and/or alkenyl radical having 1 to 22 carbon atoms, n<sub>1</sub> and n<sub>2</sub>, independently of one another, are 0 or numbers from 1 to 60, and m is 0 or numbers from 0.5 to 5, with the provisos that the sum of the carbon atoms in the radicals R<sup>12</sup> and R<sup>14</sup> is at least 6 and preferably 12 to 18, and the sum (n<sub>1</sub>+m+n<sub>2</sub>) is different from 0 (§34-35). In this claim, R<sup>14</sup> corresponds to R<sup>1</sup>, R<sup>12</sup> corresponds to R<sup>2</sup>, R<sup>13</sup> is hydrogen, n<sub>1</sub> corresponds to x, and m and n<sub>2</sub> are 0. Tartakovsky et al. and Kischkel et al. are analogous art because they are from the same field of endeavor, namely that of solid dishwashing detergents. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Kischkel et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (§34-35) and teaches that either of them can be used in the detergent.

Regarding claims 30-31, Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach the non-ionic surfactant of the formula described in claims 30-31. However, Kischkel et al. does teach using a hydroxy mixed ether as a non-ionic surfactant in dishwashing detergents. The hydroxy mixed ether is of the general formula:



in which R<sup>12</sup> is a linear or branched alkyl radical having 2 to 18 carbon atoms; R<sup>13</sup> is hydrogen or a linear or branched alkyl radical having 2 to 18 carbon atoms; R<sup>14</sup> is a linear or branched alkyl and/or alkenyl radical having 1 to 22 carbon atoms, n<sub>1</sub> and n<sub>2</sub>, independently of one another, are 0 or numbers from 1 to 60, and m is 0 or numbers from 0.5 to 5, with the provisos that the sum of the carbon atoms in the radicals R<sup>12</sup> and R<sup>14</sup> is at least 6 and preferably 12 to 18, and the sum

( $n_1+m+n_2$ ) is different from 0 (§34-35). In this claim,  $R^1$  corresponds to  $R^{14}$ ,  $R^2$  corresponds to  $R^{12}$ ,  $R^{13}$  is hydrogen,  $n_1$  is 0,  $m$  corresponds to  $y$ , and  $n_2$  corresponds to  $x$ . . At the time of the invention, a person of ordinary skill in the art would have found it obvious to use this non-ionic surfactant, as taught by Kischkel et al., in the detergent, as taught by Tartakovsky et al., and would have been motivated to do so because this non-ionic surfactant and the ones taught in Tartakovsky et al. are functional equivalents and it would be obvious to select one over the other. In fact, Holderbaum et al. teaches the same non-ionic surfactant disclosed in claim 24 above (§34-35) and teaches that either of them can be used in the detergent.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tartakovsky et al. (WO 99/05248) as applied to claim 1 above, and further in view of Smith (US 2003/0224959).

Tartakovsky et al. teaches the basic detergent of claim 1. Tartakovsky et al. does not teach that the preconditioned unit dose is selected from the group consisting of a filled water-soluble container, a filled injection molded body, a filled cast body, and a filled film pouch. However, Smith teaches a detergent system in unit-dose form packaged in a water-soluble film wrap (§2). Tartakovsky et al. and Smith are analogous art because they are from the same field of endeavor, namely that of dishwashing detergent compositions. At the time of the invention, a person of ordinary skill in the art would have found it obvious to use a water-soluble film wrap, as taught by Smith, to package the detergent composition, as taught by Tartakovsky et al., and would have been motivated to do so because the consumer wouldn't have to touch the detergent tablet itself, they would be handling the outer packaging. Additionally, if the tablet were to break apart in transit, it would be contained within the film wrap.

### *Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela C. Scott whose telephone number is (571) 270-3303. The examiner can normally be reached on Monday through Friday, 8:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./  
Supervisory Patent Examiner, Art Unit 1796  
14-Sep-08

/A. C. S./  
Examiner, Art Unit 1796